

TURKEY TODAY

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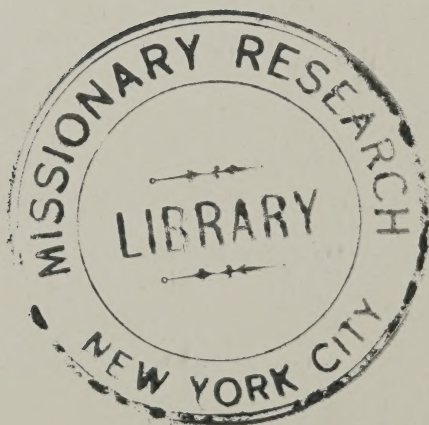
HEALTH
AND
SOCIAL WELFARE
IN TURKEY



TURKISH INFORMATION OFFICE

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HEALTH AND SOCIAL WELFARE IN TURKEY

HEALTH and social welfare in Turkey come within the province of the Ministry of Health and Social Assistance which works in close cooperation with provincial, municipal, charitable, and private institutions.

Before analyzing the role played by these other institutions in the field of health and hygiene in Turkey, let us study the structure of the health ministry itself.

THE MINISTRY OF HEALTH AND SOCIAL ASSISTANCE is situated in Ankara, the capital. The minister, who is a member of the cabinet, is aided by an undersecretary (supervisor of all the departments at the ministry) and by an assistant undersecretary. The different departments of the ministry may be listed as follows: *

(1) The Presidency of the Group of Inspectors who inspect all health activities throughout the country.

(2) The Department of Hygiene, which includes all the branches of preventive medicine.

(3) The Department of Social Assistance that takes care of social welfare and professional training activities.

(4) The Personnel Department which keeps the professional files of all doctors, pharmacists, and chemists.

(5) The Department of Health Education and Vital Statistics.

(6) The Department of Maritime Quarantine which takes necessary measures to prevent the entry of infectious and contagious diseases by way of land or coastal boundaries.

(7) The Department of Anti-Malaria Activities.

(8) The Higher Health Council which examines laws, rules, and regulations prepared by the Ministry of Health and also acts as arbitrator in judicial questions arising from the practice of medicine and allied professions.

In the provinces we find health advisers, health directors, health officers, health centres, municipal physicians, ambulating

* Medico-Social Activity and Organization in Turkey, 1946
Turkish Ministry of Health and Social Assistance, Ankara.
M. Sadik Kâğıtci Matbaası, Istanbul.

physicians, municipal obstetricians and midwives, municipal hospitals and dispensaries, homes for the aged and infirm, etc.

In villages there are village doctors, village midwives, village health officers, etc.

The work of the Ministry of Health and Social Assistance is roughly divided into two categories, i.e., (A) social assistance, and (B) preventive medicine.

(A) *Social Assistance*: Hospitals and other health institutions play a major role in social assistance. The ministry has established numerous model hospitals, mental homes, sanitariums, maternity homes, hospitals for contagious diseases, etc. These institutions number 194, with a total of 17,745 beds, where the poorer sections of the community are treated free of charge. The great majority of these hospitals were opened since the inception of the Republic in 1923.

There has been a steady increase in the number of patients treated at these hospitals, whether as in-patients, or as out-patients who received treatment at the clinics. Figures from 1935 to 1950 are given below: *

<i>Year</i>	<i>in-patients</i>	<i>out-patients</i>
1935	16,981	124,809
1936	21,666	202,039
1937	23,112	241,216
1938	25,368	263,951
1939	38,973	288,764
1940	42,185	409,894
1941	41,571	425,295
1942	40,710	391,852
1943	45,032	365,523
1944	47,657	388,720
1945	72,394	556,538
1946	63,376	533,802
1947	77,670	655,477
1948	89,467	705,862
1949	95,574	582,567
1950	108,095	651,511

* Medico-Social Activity and Organization in Turkey, 1946
 Turkish Ministry of Health and Social Assistance, Ankara.
 M. Sadik Kâgitci Matbaası, Istanbul.

The ministry is doing everything it can to encourage a higher birthrate and to keep down the rate of infant mortality. It is interesting to note that the infant mortality rate had dropped to 78.4 per thousand in 1950, whereas it stood at 170 per thousand in 1933. In Ankara alone, which possessed not a single maternity hospital before the Republic, there is today an up-to-date 200-bed maternity hospital in addition to the more than 300 beds available in the maternity wards of other Ankara hospitals. *

Also under the heading of social assistance we have the medical and allied vocational training schools established by the health ministry. These schools serve the dual purpose not only of providing the ministry with adequately-trained doctors and other health personnel but also of aiding future doctors, dentists, pharmacists, registered nurses, etc., from the lower-income families to obtain the kind of training which they could not otherwise afford. In these cases the ministry provides tuition, board, lodging, and even clothing. In return, the beneficiaries agree to serve with the ministry for a stipulated number of years after graduation, with pay in accordance with the regular scale of salaries prevailing for civil servants in Turkey. Excellent results have been obtained from the application of this method which has made it possible to station doctors, dentists, pharmacists, and trained nurses even at quite remote rural areas where in the past they had been conspicuous mainly by their absence. The number of doctors trained at the School of Medicine of Istanbul University with aid from the Ministry of Health between 1929 and 1946 is 2,150, with a corresponding increase in the number of trained doctors working under the ministry. Detailed figures are given below:

<i>Year</i>	<i>M.D. graduates</i>
1928	1,078
1934	1,217
1938	1,370
1946	2,150

Another source for health personnel are the graduates from the health and hygiene departments of the Village Institutes

* The Journal of the American Medical Association — Oct. 1, 1949

which were started in Turkey some years ago: they lose no time in getting to work in rural areas. The number of health officers graduated from Village Institutes in 1945 was 280, and 315 in 1946, contributing to a total of 2,830 in 1951.

There were also 857 nurses and 1,685 midwives.

Vocational training in the field of social assistance in Turkey also includes the School for the Blind, Deaf, and Dumb, located at Izmir in western Turkey. The handicapped unfortunates who attend this excellent school are taught trades and skills that enable them to become self-supporting members of society.

(B) *Preventive Medicine:*

The Turkish Ministry of Health and Social Assistance attaches utmost importance to preventive medicine, on the proven theory that prevention is much better than cure. Therefore much is done to inform and educate the general public by means of broadcast talks, newspaper and magazine articles, booklets and pamphlets, educational movies, etc., relating to preventive measures against the danger of infectious diseases.

The vaccine and sera required in the fight against infectious diseases are prepared at the Refik Saydam Central Institute of Hygiene, Ankara. To give an idea of the scope of this work, it may be mentioned that the Institute's output in a single year included sufficient anti-typhus vaccine for 8 million people and smallpox vaccine sufficient for 30 million persons. Vaccine and sera are sent to the ministry's branch organizations in every town and village for use by the local population, free of charge.

The major diseases against which the ministry is conducting widespread campaigns are listed below:

(1) *TYPHUS*: Prompt and effective measures served to cut short the incidence of typhus which began to rise in Turkey during the first year of the Second World War (1940). Cox typhus vaccine prepared at the Refik Saydam Central Institute of Hygiene in Ankara in quantities sufficient for ten million persons was used in the affected areas of Turkey, parallel with the intensified use of DDT in the fight to eliminate the danger of infection from lice.

(2) *TYPHOID FEVER*: Typhoid fever is endemic in certain parts of Turkey, but preventive measures adopted by the health ministry have been vigorously applied in other areas as well. Inoculation against typhoid fever is resorted to regularly each year, especially in factories, schools, etc., where people are brought into close contact with each other. This inoculation is available free of charge at health centers attached to the ministry.

(3) *SMALLPOX*: The fight against smallpox has continued unabated since the inception of the republican form of government in Turkey. During the last war, smallpox entered Turkey from one of the neighboring countries and attained epidemic proportions which reached its peak in 1943. Some 20,000 persons were affected, and the loss of life totalled 2,000. Inoculations finally resulted in slowing down the spread of this disease in 1944, and brought it completely under control in 1945. The quantity of smallpox vaccine prepared by the Refik Saydam Institute and distributed to all parts of Turkey between 1942-1945 was more than sufficient to vaccinate twice the total population of the country.

(4) *DIPHTHERIA*: Diphtheria makes sporadic appearances in Turkey where diphtheria toxoid is used by the ministry's health centers as a preventive measure on children.

(5) *PLAGUE*: The following sanitary measures have been taken to prevent the entry of this disease into Turkey, especially from such areas as North Africa, Corsica, and Palestine:

(a) Plague vaccine is applied to all persons whose duties on ships and harbor installations bring them into close contact with ships arriving from foreign countries.

(b) Rat and flea control has been intensified in all maritime and border areas.

(c) Plague vaccine is applied to everyone who plans to travel to a country where plague is endemic.

(6) *SUMMER DIARRHOEA*: It has been established that there is a decided increase in the infant mortality rate due to summer diarrhoea during the hot months in Turkey. Preventive measures adopted by the ministry, intensified since 1946 to

include the free distribution of specific bacteriophage and sulfa-guanil, have served to reduce the mortality rate in gratifying degree.

(7) *NECOTORIASIS*: Necotoriasis made its first appearance in Turkey in certain areas along Turkey's Black Sea coastline during the First World War. The health ministry has spared no effort to ensure that the disease should not spread to other parts. A vigorous preventive campaign initiated in 1945 includes the following precautionary measures: *

(a) The closing of open latrines and the opening of sanitary privies.

(b) Supplying farmers with artificial fertilizers to discourage the use of human excreta as manure.

(c) Free distribution of drugs for the treatment of persons suffering from necotoriasis.

(d) Distribution of pamphlets and educational posters to inform the public about the manner in which necotoriasis spreads.

(e) General microscopic examination of human excreta in heavily infested areas.

(8) *VENEREAL DISEASES*: The long-standing fight against venereal diseases in Turkey is yielding satisfactory results. Treatment is free, and compulsory in the case of syphilitics. Health centers attached to the Health Ministry keep track of syphilitic out-patients until their case-records show a negative reaction.

(9) *MALARIA*: Malaria, Turkey's traditional scourge, is endemic in several areas.

Malaria is especially harmful in the summer months because of its effect on the health and activities of people in the villages (who make up the major proportion of Turkey's population), which in turn hampers agricultural production.

The Turkish Health Ministry has always paid particular attention to malaria, starting in 1925, only two years after the inception of the Republic. The fight against malaria was later intensified in carefully-designated malaria control areas which

* Medico-Social Activity and Organization in Turkey, 1946
Turkish Ministry of Health and Social Assistance, Ankara.
M. Sadik Kâgıtcı Matbaası, Istanbul.

have been steadily increased in number each year. By 1944 there were 18 major independent areas and one secondary area.

Due to the shortage of effective anti-malaria drugs and the effect of certain other factors during the years 1940-1943 of the Second World War, malaria (and particularly falciparum malaria) spread to areas in Turkey which were not malarial in the past. Acting on a resolution adopted by the Turkish Medical Congress of 1945, the National Assembly passed a law providing for the establishment of additional malaria control areas, with a program for intensified effort in all aspects of the fight against malaria.

The increase in malaria control areas and organization between 1944-1949 is indicated below: *

<i>Year</i>	<i>M.D.'s Employed</i>	<i>Malaria Control Workers</i>	<i>Major Independent Areas</i>	<i>Secondary Areas</i>	<i>Population of Areas</i>
1944	151	563	18	1	3,650,068
1949	293	1177	27	14	9,616,676

Each director of a malaria control area conducts regular inspections of personnel, activities, results, etc., and issues new directives as required. The physicians employed for anti-malaria activities in any given area spend two-thirds of their time touring the villages and following-up on individual cases. Health officers also tour the villages in their own areas, visiting every village at least three times each month to distribute drugs, spray DDT on contaminated water, and generally supervise sanitary services.

Thanks to this type of continued effort, it is a rarity now to come across farmers and laborers who have to stop work because of malaria. The number of people treated for malaria in different years, and their proportion to the total population of the areas concerned, are shown below: *

<i>Year</i>	<i>No. of people treated in control areas</i>	<i>Percentage in proportion to total population in control areas</i>
1945	2,542,272	33 per cent
1946	2,186,175	36 per cent
1947	2,016,705	33 per cent
1948	1,672,021	26 per cent
1949	1,323,793	13 per cent
1950	1,118,573	12 per cent

* Malaria Control in Turkey, 1949
Turkish Ministry of Health and Social Assistance, Ankara.

The general physical examinations carried out in villages that come under malaria control activities show that the spleen index is decreasing each year: *

<i>Year</i>	<i>Population</i>	<i>No. of Examination</i>	<i>Spleen Index</i>
1945	7,549,280	5,552,487	—
1946	6,032,573	4,713,482	25
1947	6,036,073	4,462,845	19
1948	6,403,475	4,506,438	14
1949	9,616,676	4,323,270	14
1950	8,873,199	4,545,425	7.5

The quantity of Atebrine, and number of ampoules of quinine, distributed to the public for treatment as well as for preventive purposes in emergency and serious cases, are as follows:

<i>Year</i>	<i>Atebrine (kilograms)</i>	<i>Quinine (ampoules)</i>
1945	4,848	45,304
1946	6,108	76,051
1947	6,075	73,445
1948	5,357	59,270

Following the attack treatment, plasmoquine and similar drugs were distributed as gametocides, together with other anti-malarials, to patients suffering from malaria.

The death rate among malarial patients treated in State, Provincial, and Private Hospitals has shown a decided decrease in recent years. This constitutes proof of the efficacy of the fight against malaria:

<i>Year</i>	<i>Patients treated in Hospitals</i>	<i>Number of Deaths</i>
1943	11,091	666
1944	9,138	402
1945	6,755	197
1946	5,824	155
1947	4,443	101
1948	4,094	91

* Malaria Control in Turkey, 1949
Turkish Ministry of Health and Social Assistance, Ankara.

The death rate in proportion to birth-rate, carefully checked each year in malaria control areas, also shows a decided decrease in the death rate:

<i>Year</i>	<i>Birth-rate per 1,000 population</i>	<i>Death rate per 1,000 population</i>	<i>Rate of natural Increase (0/00)</i>
1943	30.14	19.68	10.71
1944	29.18	18.96	10.78
1945	25.79	12.27	13.79
1946	25.82	10.14	16.31
1947	27.45	11.14	16.31
1948	29.93	11.14	18.49
1949	29.95	11.51	18.41
1950	32.91	10.41	22.52

The infant mortality rate in countries with an efficient health organization fluctuates between 30 to 200 per thousand. As a result of the campaign against malaria instigated in Turkey in 1945, and the successful results of the fight against summer diarrhoea, a decrease is to be observed in the infant mortality rate in Turkey:

<i>Year</i>	<i>Age Groups 0 — 1 yr. Death-rate per 1000,</i>
1943	105
1944	111
1945	77.58
1946	75.27
1947	78.91
1948	77.54
1949	78.47
1950	78.41

THE FIGHT AGAINST ANOPHELES: The Health Ministry is also engaged in extremely vigorous activity aiming to exterminate malaria-carrying anopheles in swamps, stagnant waters, stables, dwellings adjoining still and tideless waters, etc. Excellent results are being secured since 1946 by means of spraying DDT in different areas. As a case in point, heavy and continuous rainfall in southern and southeastern Turkey and along Turkey's Mediterranean and Black Sea coastline in the mid-summer of 1948 brought about a situation that was highly favorable to a swift increase in the number of anopheles bred

and hatched in those parts. Thanks to the swift and efficacious spraying of all dwellings in no less than 10,319 villages, there was not even the smallest sign of an epidemic. The spray used in 1948 totalled 70 tons of DDT, 594 tons of kerosene, and 1339 tons of fuel oil.

In 1951 the fight against malaria was intensified by a re-organization of the control system. The number of major control areas with complete control outfits was raised to 34.

The control area was extended towards the eastern vilayets, with two new vilayets and 639 new villages coming under control. Thus the number of villages under control rose from 11742 to 12381.

The amount of DDT used in 1951 rose to 650 tons as compared with 150 tons, the previous annual consumption of this deterrent.

Efforts to motorize the combat teams have been intensified. Budgetary allocations for providing all units with jeeps have been made.

THE MALARIA INSTITUTE: There is a special Malaria Institute at Adana in southern Turkey where civilian and military doctors take a post-graduate course in anti-malaria techniques. The Institute also has a 20-bed hospital attached to it.

(10) *ANTI-TUBERCULOSIS CAMPAIGN:* Tuberculosis is one of the major health problems in Turkey. There has been an increase in the tuberculosis rate in Turkey during the past ten years, due in large measure to the unfavorable economic and social conditions created by the Second World War. Between 1931-1939, the total number of deaths from TB in 21 towns and cities with a total population of 1,500,000 was in the ratio of 166 per 100,000. (Based on this figure, the overall total of deaths from TB in the whole of Turkey between 1931-1939 would amount to some 31,000 per year).* Despite the lack of later figures, the death rate during the War years rose higher than the former 166 per 100,000: we could estimate it at between 40-50,000 deaths per year. **

* The Journal of the American Medical Association — June 25, 1949

** National Health Plan, First Ten Years, 1947

Turkish Ministry of Health and Social Assistance, Ankara.

The fight against tuberculosis in Turkey is waged jointly by the Health Ministry and the Societies for the Control of Tuberculosis. The numerous TB centers and dispensaries established in different parts of Turkey help to locate cases of TB, and aid in finding beds for them at TB hospitals and preventoriums. Dispensaries with insufficient funds receive monetary and other aid from the Turkish Red Crescent (Red Cross) Society.

At the present time there are Societies for the Control of Tuberculosis in 52 of Turkey's 63 provinces. In 1951 the number of Societies had increased to 91. Dispensaries opened by the Societies rose to 34.

It is a regrettable fact that the insufficient number of beds allocated to persons suffering from TB in Turkey makes it necessary for many people to wait for a chance to get into a hospital. The present number of beds averages about 1.15 per 10,000 of population.

Taking into consideration the inadequacy of its existing anti-tuberculosis measures, the Health Ministry submitted to the National Assembly in 1948 a bill providing over 1,063,000 dollars per year to be spent for anti-TB activities for the next fifteen years. The bill as passed into law stipulated that two-thirds of this annual appropriation would go for the construction of new pavilions, and one-third for the purchase of equipment. The pavilions were to serve as annexes to general hospitals where specialists, X-ray equipment, and laboratories are already available, thus serving to cut down on expense.

This was in addition to the provisions of the 10-year national health program approved by the Health Ministry in 1946, providing for the establishment of one 100-bed preventorium, one 300-bed sanitarium, and one 300-bed hospital for tubercular patients in each of seven specified areas in Turkey. It was also planned to increase the number of TB dispensaries. *

BCG vaccine against tuberculosis is prepared at the Refik Saydam Central Institute of Hygiene in Ankara and distributed

* National Health Plan, First Ten Years, 1947
Turkish Ministry of Health and Social Assistance, Ankara.

free of charge to doctors who request it. Used between the third and the seventh day after birth on babies born of tubercular parents, the BCG vaccine has lost somewhat in popularity.

Since 1950 the Ministry has introduced new vigorous measures for combating the disease more effectively.

The B.C.G. vaccine centers have been extended to practically all "vilayet" centers where the disease is prevalent, and the number of people vaccinated in the first 5 months of 1951 was 90,564, an increase of over three hundred percent in comparison with 1950.

In 1950 one thousand new beds for tubercular patients were added to the existing 1010. In 1951 the total number was increased to 4107.

With the new equipment procured with the help of the World Health Organization, the B.C.G. vaccine center in Ankara has been brought up to the latest standards.

(11) *CONTROL OF RABIES*: The work of controlling rabies in Turkey started in 1887 with the founding of the Antirabic Institute opened at Istanbul. Since then, anti-hydrophobia activity has kept pace with modern progress in that field of medicine, with vaccine prepared, distributed, and administered to hundreds of persons from all parts of Turkey suffering from canine madness.* Since 1923 the Antirabic Institute at Istanbul has been enlarged and reorganized, and two other modern Institutes have been established, one at Ankara and the other in Izmir. These are in addition to the more than 80 antirabic stations that are active in different parts of the country.

(12) *TRACHOMA CAMPAIGN*: Trachoma is endemic in the southeastern provinces of Gaziantep, Urfa, Mardin, Siirt, Diyarbakir, and Malatya. The movement of troops during the First World War had given a temporarily epidemic character to trachoma in Turkey.

Acting on recommendations adopted at the Second Turkish Medical Congress held in 1927, the campaign against trachoma

* The Journal of the American Medical Association — Feb. 11, 1950

was taken up vigorously in each of the provinces mentioned above. Every precaution was adopted to keep the disease localized, including free treatment and medical supplies, educational lectures and posters, etc. The result has been successful, as shown by the decreasing figures for people blinded by trachoma in two typical cities: *

<i>City</i>	<i>Year</i>	<i>Population</i>	<i>Persons Examined</i>	<i>No. Blinded by Trachoma</i>	<i>Rate per 10,000</i>
Diyarbakir	1927	—	—	—	36
	1949	41,000	34,496	81	23.5
Siirt	1927	—	—	—	45
	1949	16,230	9,698	14	14.4

The use of sulfamids and antibiotics in recent years has served to shorten the period of necessary treatment and also contributed to enhancing the success of the fight against trachoma in Turkey.

(13) *LEPROSY*: Cases of leprosy are to be found in areas of Turkey that are close to the Soviet or the Iranian borderline, such as at Kars, Erzurum, Agri, and Van. Some are also to be met with in the provinces of Sivas, Kayseri, Gaziantep, Maras, and Hatay.

It is interesting to note that the first Leprosariums in Turkey were established in the 13th century at Kayseri, and then at Istanbul, Edirne, Konya, and Zafranbolu in the 17th century. The Leprosarium founded by Sultan Mahmud the Second (1765-1839) at Scutari in Istanbul served for many years to provide a home for the unfortunate victims of this dread disease.** At the present time there are two 200-bed Leprosariums in Istanbul and Elazig.

Provincial health officers and city health inspectors are always vigilant against possible cases of leprosy, although these are usually reported by friends and relatives of the persons concerned.

* The Journal of the American Medical Association — May 20, 1950

** The Journal of the American Medical Association — January 29, 1949

INSTITUTIONS OTHER THAN THE MINISTRY OF HEALTH WORKING FOR PUBLIC HEALTH IN TURKEY

Municipalities, provincial departments, non-profit organizations and charitable institutions, private individuals, factories and places of business on a large scale, etc., also play a part in safeguarding public health in Turkey. Working in close cooperation with the Ministry of Health which extends them every facility, certain organizations have established hospitals where patients are treated free of charge, both as in-patients and out.

HOSPITALS IN TURKEY are attached to one or the other of the official government departments, institutions, or organizations named below:

STATE HOSPITALS are administered by the Ministry of Health and Social Assistance, with personnel employed on a full-time basis.

PROVINCIAL DEPARTMENT HOSPITALS are administered by provincial departments, with personnel employed on a full-time basis.

MUNICIPAL HOSPITALS are administered by the municipalities, with personnel employed on a full-time basis.

HOSPITALS ATTACHED TO THE MINISTRIES, administered by the ministry concerned.

HOSPITALS ADMINISTERED BY NON-PROFIT ORGANIZATIONS, charitable institutions, religious organizations, and private individuals have their medical personnel on either an open-staff or closed-staff basis.

HOSPITALS ATTACHED TO FACTORIES OR PLACES OF BUSINESS are administered by the factory or the place of business concerned.

FOREIGN HOSPITALS, administered according to the provisions of their various Charters, etc.

There is a total of 245 hospitals in Turkey (exclusive of military hospitals) with 19,775 beds. According to Turkey's

population in 1950 (20,934,670), this works out in the ratio of about 9.45 beds per 10,000 persons. The greater number of hospitals are concentrated in the larger cities, with 7,500 of the beds located in Istanbul alone.

Included in the 245 hospitals are 27 private hospitals with 755 beds, 10 foreign-owned hospitals with 683 beds, and 14 factory-owned hospitals with 592 beds.

Not included in the above figures are 185 smaller clinics with a total of 925 beds. Taking these additional beds into consideration, the ratio of beds per 10,000 of population rises to 9.88.

MEDICAL SCHOOLS IN TURKEY

The duly qualified medical personnel for hospitals in Turkey is provided by graduates of Turkish medical schools, of which there are two, attached to the University of Ankara and to the University of Istanbul respectively. The School of Medicine attached to the University of Ankara was established in 1945, and will yield its first graduates in 1951.

The School of Medicine at Istanbul University is a continuation of the Military School of Medicine and Pharmacology founded in the reign of Sultan Mahmoud the Second (March 14, 1838) and of the National Medical School founded in 1873. In 1909 the National Medical School became the Faculty of Medicine, with the Military School of Medicine also attached to it. When Istanbul University was thoroughly re-organized in 1933, the Faculty of Medicine emerged from the change strengthened by the addition of new hospitals and an enlarged teaching staff.

Women students of medicine were first admitted to the School of Medicine at Istanbul University in the academic year 1922-1923. The number of men and women graduated from the faculty of medicine at Istanbul University from 1933 to the school year 1946-47 is shown below: *

* The University of Istanbul Catalog, 1948-1949
Ismail Akgün Matbaasi, Istanbul.

<i>Year</i>	<i>Women</i>	<i>Men</i>	<i>TOTAL</i>
1933/34	2	82	84
1934/35	2	98	100
1935/36	0	152	152
1936/37	7	182	189
1937/38	0	257	257
1938/39	27	301	328
1939/40	26	270	296
1940/41	33	289	322
1941/42	0	288	288
1942/43	28	272	300
1943/44	59	331	390
1944/45	57	367	424
1945/46	57	278	335
1946/47	67	336	403

It will be noted that the proportion of women graduated from Turkish medical school reached 17 per cent in 1945 and 16.6 per cent in 1946.

TEACHING IN THE FACULTIES OF MEDICINE is done in Turkish, as is the case in all other Turkish schools, with specialized terminology in both Turkish and Latin. Each medical student is obliged to learn at least one foreign language really well.

The course of study takes twelve semesters, spread over six years. The courses are divided into Premedical Teaching, Pre-clinical Teaching, and Clinical Teaching.

Students planning to become physicians spend the first two semesters in a general study of physics, chemistry, and the natural sciences. In this way they add to their knowledge already acquired at the Lyceum, and also gain laboratory experience. The following three semesters are devoted to the study of pre-medical subjects. During the remaining seven semesters they are instructed in the different types of diseases, their causes, prevention, possible cure, etc. The basic principle is to impart to students powers of scientific observation by bringing them into direct contact with patients. Consequently, beginning with the sixth semester, work in the different clinics occupies an important place in medical training. There are 18 clinics in the

Faculty of Medicine at Istanbul. In addition to the practical courses held in the clinics, instruction is given in microbiology, parasitology, study of epidemics, hygiene and social hygiene, pathological anatomy, physiotherapy, pharmacology, radiology, etc.

The last two semesters at the Faculty of Medicine correspond to the internship period in the United States. Graduates receive the diploma of Doctor of Medicine. They need pass no other examination in order to practice.

Physicians who desire to specialize in a certain subject are required to serve as residents for three or four years (depending on the subject) in some State-approved hospital, and must also pass the examination to be held at the end of that period.

The holder of a diploma from the Faculty of Medicine may practice in any part of Turkey that he pleases, on the sole condition that he be a Turkish citizen.

There are a total of 6,314 civilian physicians in Turkey (1951), including general practitioners and specialists alike. This works out at roughly one physician for every 3,300 of population.

In addition there are 1,296 dentists and dental surgeons, 1,685 midwives, 2,830 health officers, (600 in villages), 857 registered nurses, and 1,052 village midwives. The School of Dentistry in Istanbul has been considered the best in its field in South-Eastern Europe and the Middle East, serving students from all around the area.

A LOOK TO THE FUTURE

If it is obvious from what has gone before that admirable progress has been made in Turkey during the 28 years since the inception of the Republic in 1923, it is equally obvious that Turkey's health personnel is still insufficient to meet requirements in this vital field. The necessity to increase the number of hospitals, beds, doctors, registered nurses, and other health personnel is self-evident in every corner of the country.

Turkey's major requirements were drawn up in November 1946 by the Health Ministry's Higher Health Council in what

has come to be known as the Ten-Year Health Plan. This can be summarized as follows:

(A) To attach even greater importance to preventive medicine, with special emphasis on child welfare and the lowering of the infant mortality rate, and intensified work against communicable and contagious diseases, especially against malaria and tuberculosis. Health education and the propagation of useful knowledge in this field will be increased.

(B) To provide adequate medical facilities for villages and villagers. The village populations of Turkey, who constitute almost 80 per cent of the total population, are the main source of the country's strength and future growth. At the present time, it is planned to provide one rural health officer and one rural midwife for each group of ten villages; and one health center with ten beds for every group of forty villages. In attendance at these health centers will be two physicians, one midwife, one health officer, and one visiting nurse.

(C) To train both existing and new personnel in conformity with advanced modern techniques; and to increase their number in each category, so as to provide at least one physician for every 2,000 of the population, instead of one for every 3,000 as at present.

(D) To establish and operate in each of the seven zones into which Turkey has been divided for this purpose, new health institutions (complete in every respect as to personnel and organization) which will form the nucleus of future medical schools, while at the same time serving to meet all medical and social needs.

THE NEW HEALTH INSTITUTIONS to be established in each of the seven zones will comprise: one 500-bed regional hospital; one 300-bed hospital for mental and nervous diseases; one 300-bed hospital for young children; day-nurseries for small children whose mothers are obliged to work; one 200-bed maternity hospital; tuberculosis control centers to keep track of possible cases of TB and arrange for the patients to be hospitalized in preventoriums, sanitariums, or hospitals for tubercular patients; one 100-bed preventorium; one 300-bed sanitarium; one 300-bed

hospital for tubercular patients; one 50-bed wing for venereal diseases, to be located in tuberculosis dispensaries; one 200-bed convalescent home; one home for destitute and aged persons, the number of beds to be determined according to local needs; one 100-person institute for deaf, dumb, and blind persons; one 100-bed hospital for contagious and epidemic diseases; one institute for tropical diseases; zonal institutes for nurses, midwives, and health officers; zonal institutes of hygiene to engage in bacteriological and serological analyses, chemical and biological analyses, and the examination and control of the sanitary standards of foods and water, etc.; health museums to enlighten the public by means of visual aids.

Lack of funds, the intensification of the cold-war, and the priority acquired by military preparations have prevented the application of the plan. But since 1950 there has been a great intensification of the struggle against disease and bad hygiene. As indicated under their appropriate chapters the number of beds available to patients, the use of pest-killers like DDT and the application of vaccines and serums has registered a sharp increase. A new precedence has been given to the building of new hospitals, the acquisition of new medical equipment and to the training of nurses and health personnel. The government is working on new legislation.

1. A new law is being prepared to encourage nursing.
2. With a view to encouraging doctors to take up service as public health officers and devote all their time and ability to this work, legislation that will set up a new system for these is under consideration.
3. New measures are being planned for combatting tuberculosis on a nation-wide scale.
4. The Health Commission of the National Assembly is elaborating on a law that will set up Independent Medical Chambers or Associations. Also, international cooperation for improving Turkish medical facilities has received a new impetus. Turkey has been elected to the executive committee of the World Health Organization. In the course of 1951 the organization set up a training center in Istanbul for the personnel of

tuberculosis combat units, and provided nine scholarships for specialized training abroad. Cooperation with Unicef for helping expectant mothers and for combatting infant mortality has been widened. Also, Marshall Plan aid funds have been allocated to medical equipment. With great priority given to the development of medical facilities, the people of Turkey are looking forward with confidence to an increasing and healthier longevity.

HISTORY OF TURKISH MEDICINE

Turkish contributions to medicine are many. As early as the 9th century Rhazes (Ebubekir Razi — 850-923 A.D.) wrote fifty volumes on medicine. His treatise on smallpox and measles is the first scientific paper on the subject.

The invaluable contribution made to medicine by Avicenna (Ibni Sina) during his lifetime from 980 to 1037 A.D. is too well-recognized to require stressing here: his original work, *The Canon of Medicine*, exerted great influence on medical thought and trends both in his own time and in the course of following generations.

Another famous physician of that era was Ebu Reyhan (972-1028 A.D.)

The history of social assistance in Turkey also goes back for many centuries. Institutions for social aid of which the ruins may still be inspected today include the Gökburu group at Erbil, Mosul, (1154-1234 A.D.) and the Yakup Celebi group (1411 A.D.). They both contained separate quarters for sick people, the blind, orphans, and widows; and poorhouses and soup kitchens. An inscription stands to this day, clearly stating that all travellers and their horses will be lodged and fed, with free treatment and medicine for the sick. *

* Un Document Concernant le Service Sanitaire et l'Assistance Publique dans la Turquie du XVeme Siècle, *Tedavi Seririyâti ve Laboratuvarı*, Vol. 2, No. 8, Istanbul, 1932
Prof. Dr. A. S. Ünver

The Ottoman Turks attached great importance to hygiene. The list below shows some of the better known hospitals and special institutions founded in this era:

Bursa Darüssifa Hospital, 1399, at Bursa
Edirne Leprosarium, 1421, at Edirne
Fatih Hospital, 1470, at Istanbul
Edirne Hospital, 1485, at Edirne
Üsküdar Leprosarium, 1514, at Istanbul
Haseki Sultan Hospital, 1539, at Istanbul
Manisa Mental Hospital, 1554, at Manisa
Süleymaniye Hospital and Medical School, 1555, at Istanbul.

Not content with medical treatment of a high standard, these ancient Turkish hospitals also went in for experimental research on a wide scale. Because it took place in the fifteenth century, it is worthwhile to note that in testing the efficacy of an antidote for snake-bite poison a Turkish physician, Dr. Serafeddin Sabuncuoglu not only experimented with cocks but also used his own person in the experiments. *

Preventive medicine was popular with the ancient Turks. Both official bodies and the general public always attached great importance to the segregation of persons suffering from leprosy. The hospital established in Cairo in 1284 A.D. by the Turkish Emir Seyfettin Kalavun had separate quarters for lepers; and there was a separate hospital for lepers opened at Kayseri in the thirteenth century. It is also a well-known fact that smallpox vaccine was widely used in Turkey at a time when it was still unknown in the rest of Europe: Lady Mary Wortley-Montague, wife of the British Ambassador to the Ottoman Court in the eighteenth century, saw and learned the method of vaccinating against smallpox as applied in Turkey, and introduced it to Europe. **

* Tedavi Seririyâti ve Laboratuvarı, Vol. 2, No. 8
Istanbul, 1932
Prof. Dr. A. S. Ünver

** The Great Doctors, a Bibliographical History of Medicine, 1933
Dr. Henry E. Sigerist
W. W. Norton and Company, Inc., New York.

Some of the medical schools where Turkish physicians were trained both before and after the establishment of the Ottoman Turkish Empire are listed below:

Kayseri Medical School, 1205 A.D., at Kayseri

Amasya Medical School, 1308 A.D., at Amasya

Fatih Medical School, 1470 A.D., at Istanbul

Bayezit Medical School, 1485 A.D., at Edirne

Süleymaniye Medical School, 1555 A.D., at Istanbul

Military Medical and Surgical School, 1838 A.D., at Istanbul

Civil Medical School, 1873 A.D., at Istanbul.

During the era of decline of the Ottoman Empire, various economic, social, and political factors exerted a negative and retarding effect in the field of medicine. Hospitals and other health institutions began to be neglected. Hospitals, public baths, soup kitchens, etc., endowed by private persons were misused, and funds allocated for this purpose were diverted elsewhere.

After the First World War, and after the War of Independence which followed it, the public health situation in Turkey was far from being sufficient to meet the urgent needs of the country.

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